Email System for Disabled

Swati Arora[1], Meenu[2] , Sushil Malik[3]

[1]Research Scholar, Department of Electronics and communication engineering,
Applied College of Engineering and management, Palwal, Haryana, India
Swati.arora020@gmail.com
[2]Assistand Professor, Department of Electronics and communication engineering,
Applied College of Engineering and management, Palwal, Haryana, India
jangirmeenu04@gmail.com
[3]Head of Departm,ent, Department of Electronics and communication engineering,
Applied College of Engineering and management, Palwal, Haryana, India
Sushilmalik2003@gmail.com

Abstract: Email System for Disabled is an application for the disabled people. The disabled people particularly mean the handicapped or the blind people who cannot type on the keyboard. This application is aimed at helping such people to compose and retrieve their emails by themselves. Voice operatability has been implemented to achieve this objective. The Disabled speaker will verbally speak the message to be composed and then the message will be converted to text and will be embedded in the body of the e-mail. Thus, Voice-to-text technique can help a disabled student to type his e-mail on his own. The sent mail will be retrieved and all the unread messages will be read for the Disabled user. The text-to-voice technique is being used here.

Keywords: SAPI, Speech Recognition, Speech synthesis, user training

1. Introduction

The purpose of Email System for Disabled is to enable visually/ physically challenged people to operate email by themselves. They will be able to login, select recipients, compose and retrieve mails from their account. All this has been done using the voice implementation. The Disabled speaker will verbally speak the message to be composed and then the message will be converted to text and will be embedded in the body of the e-mail. Thus, Voice-to-text technique can help a disabled student to type his e-mail on his own. The sent mail will be retrieved and all the unread messages will be read for the Disabled user.

The Email System for Disabled has the following features:

- An admin account to maintain and manage the disabled users.
- Voice enabled login.
- Selecting the receiver through speed-dial mechanism.
- Voice enabled command to choose compose or retrieve functions.
- Composing email using voice-to-text.
- Retrieving unread mails using text-to-voice.

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message to be composed and then the message will be converted to text to-text technique can help a disabled student to type his e-mail on his own. The sent mail will be retrieved and all the unread messages will be read for the Disabled user. The text-to-voice technique is being used here

2. Speech Application Interface

The Speech Application Programming Interface or SAPI is an API developed by Microsoft to allow the use of speech recognition and speech synthesis within Windows applications.

2.1 Admin Module:

The work of the admin is to manage the various users. The the list of all the user is maintained by Admins. Since the user is disables, therefore an admin is required to register the users and keep their records. The admin account is necessary as the user is disabled and thus, cannot maintain the account. The admin account maintains the records of the inbox and sent mails of all the users registered.
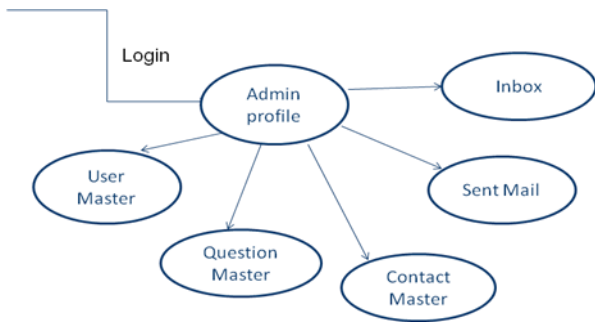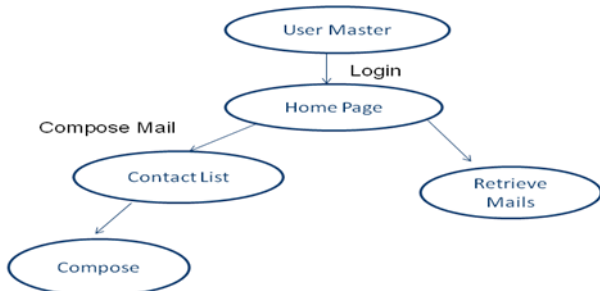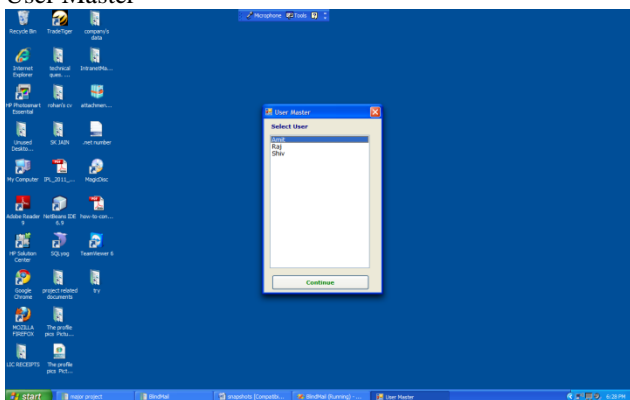
Admin Login:
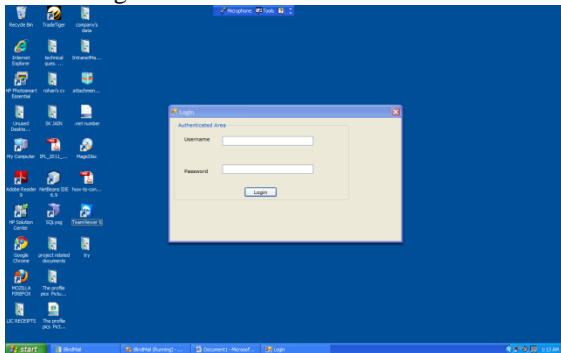
2.2 User Module:

The user of this application is a disabled person who cannot type too much or at an extreme, he is a blind person. This user will operate his account through voice only.

User Master

2.3 *Voice Implementation*

In order to operate the application through voice, speech to text conversion and text to speech conversion is required.Speech to text conversion is known as speech recognition and text to speech conversion is known as speech synthesis.The user gives commands

for composing a new message or reading the one in inbox through voice only.

3. Results and Discussions

The software performs both the basic as well as the scientific functions quite accurately. The most noteworthy feature is that it really comes across as an effective tool in the hands of the disabled and is one of its own kinds in all the other email applications prevalent in the market.

3.1 Government and Binding theory:

If the disabled person does not knows English, We can make use of GB theory to translate. This translation system makes use Government and Binding Theory for undertaking translations.Government and Binding theory is used to analyze phase structure rules in Natural Language Processing. It is used to filter out the sentences which are grammatically incorrect.

4. Future Scope

The use of voice based email system in the workplace can cut down on repetitive stress injury and related employee downtime. Speech recognition software can also be used to carry out commands that would otherwise be input through a keyboard in an email system. This can be especially helpful for those with disabilities that make using a keyboard difficult. Individuals who have problems with thought to paper communication (essentially they think of an idea but it is processed incorrectly causing it to end up differently on paper) can benefit from the software as it helps to overlap that weakness. This email application can be further modified to accept more complex commands in order to access sent mail, drafts, etc.In this busy world, everyone wants to save time. Accessing emails through this software will save much of it when the software has been trained for a specific user.

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